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From SeaDataNet to SeaDataCloud: historical data collections and new data products

Simona Simoncelli (1), Christine Coatanoan (2), Volodymyr Myroshnychenko (3), Nadia Pinardi (4), Örjan Bäck (5), Helge Sagen (6), Serge Scory (7), Alexander Barth (8), Dick Schaap (9), Reiner Schlitzer (10), and Michele Fichaut (2)

(1) INGV, Bologna, Bologna, Italy (simona.simoncelli@ingv.it), (2) Ifremer, Brest, France, (3) Institute of Marine Sciences, Middle East Technical University, Turkey, (4) University of Bologna, Italy, (5) SMHI, Sweden, (6) IMR, Norway, (7) RBINS, Belgium, (8) University of Liege, ULG, (9) MARIS, Netherland, (10) AWI, Germany

Temperature and Salinity historical data collections covering the time period 1900-2013/2014 were created for each European marginal sea (Arctic Sea, Baltic Sea, Black Sea, North Sea, North Atlantic Ocean, and Mediterranean Sea) within the framework of SeaDataNet2 Project and they are available as ODV collections through a web catalog (https://www.seadatanet.org/Products/Aggregated-datasets). Two versions have been published and they represent a snapshot of the SeaDataNet database content at two different times: V1.1 (January 2014) and V2 (March 2015). A Quality Control Strategy (QCS) was developped and continuously refined in order to improve the quality of the database content and create the best data products. The QCS consists of four main phases: 1) data harvesting from the data infrastructure; 2) file and parameter aggregation; 3) secondary quality check analysis; 4) correction of data anomalies. The approach is iterative to facilitate the upgrade of the database content and it allows a versioning of data products. Regional temperature and salinity monthly climatologies have been produced from V1.1 historical data collections and they are also available (https://www.seadatanet.org/Products/Climatologies).

Within the new SeaDataCloud Project the release of updated historical data collections and new climatologies is planned. SeaDataCloud novelties are the introduction of decadal climatologies at various resolutions, the development of climatologies for the Global Ocean and a task dedicated to new data products, like Mixed Layer Depth climatologies, Ocean Heat Content estimates, coastal climatologies from HF radar data. All SeaDataCloud products are available through a dedicated web catalogue together with their relative Digital Object Identifier (DOI) and Product Information Document (PIDoc) containing all specifications about product's generation, quality assessment and technical details to facilitate users' uptake.

The presentation will briefly overview the existing SeaDataNet products and introduce the SeaDataCloud products' plan, but the main focus will be on the first release (February 2018) of SeaDataCloud Temperature and Salinity historical data collections, spanning the time period 1900-2017, their characteristics in terms of space-time data distribution and their usability.